CITY OF NEWPORT BEACH

COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION
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CAL GREEN
ADDITIONS/ALTERATIONS - COMMERCIAL
MANDATORY MEASURES

NEWPORT BEACH AMENDMENTS

1. All equipment and appliances provided by the builder shall be ENERGY STAR labeled if ENERGY STAR is applicable t. (**NBMC # 15.10.010**) (**A5.204.1)**
2. **Elevators and escalators**. In buildings with more than one elevator or two escalators, provide controls to reduce the energy demand of elevators for part of the day and escalators to reduce speed when no traffic id detected. Document the controls in the project specifications and commissioning plan. (**NBMC # 15.10.010**) (**A5.212.1**)
3. **Appliances** (**A5.303**)
    A. Clothes washers shall have a maximum Water Factor that will reduce the use of water by 10 percent below the California Energy Commission's WF standards for commercial clothes washers
    B. Dishwashers shall meet the water use of Table A5.303.3

TABLE A5.303.3
COMMERCIAL DISHWASHER WATER USE

TYPE	HIGH-TEMPERATURE— MAXIMUM GALLONS PER RACK	CHEMICAL— MAXIMUM GALLONS PER RACK
Conveyer	0.70	0.62
Door	0.95	1.16 [BSC] 2.26 [DSA-SS]
Undercounter	0.90	0.98

4. Construction waste shall be collected using City Franchise Hauler. (**5.408.1**)

WATER EFFICIENCY AND CONSERVATION

5.712.3 Indoor water use.

5. **Meters.** Separate submeters or metering devices shall be installed for the uses described in Section 5.712.3.1.1 and 5.713.3.1.2. **(5.712.3.1)**
    A. **Additions to existing buildings in excess of 50,000 square feet.** Separate submeters shall be installed as follows (**5.712.3.1.1):**
        1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day.
        2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
            a. Makeup water for cooling towers where flow through is greater than 500 gpm
            b. Makeup water for evaporative coolers greater than 6 gpm
            c. Steam and hot-water boilers with energy input more than 500,000 Btu/h

B. Excess **consumption.** Any addition or added space within an addition that is projected to consume more than 1,000 gal/day (**5.712.3.1.2)**

6. **20% Savings**. A schedule of newly installed plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the addition or area of alteration to the building by 20% shall be provided. (Calculate savings by Water Use Worksheets) (**5.712.3.2)**
7. **Multiple showerheads serving one shower.** When a shower is served by more than one newly installed showerhead, the combined flow rate of all the showerheads controlled by a single valve shall not exceed the maximum flow rate at ≥20 percent reduction contained in Table 5.303.2.2 or the shower shall be designed to only allow one showerhead to be in operation at a time. (**5.712.3.3)**
8. **Plumbing fixtures and fittings.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall meet the standards referenced in Table 5.503.6 of division 5.3. (**5.712.3.5)**

5.712.4 Outdoor water use.

9. **Water budget.** A water budget shall be developed for landscape irrigation use installed in conjunction with addition or alteration. (**5.712.4.1)**
10. **Outdoor potable water use.** For building addition or alteration requiring upgraded water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet (the level at which Water Code §535 applies), separate submeters or metering device shall be installed for outdoor potable water use. (**5.712.4.2)**
11. **Irrigation design**. In building addition or alteration with at least 1,000 square feet but not more than 2500 square feet of cumulative landscaped area (the level at which the MLO applies), install irrigation controllers and sensors which include the following criteria, and meet manufacture's recommendations. (**5.712.4.3)**
12. **Irrigation controllers.** Automatic irrigation system controllers installed at the time of final inspection shall comply with the following: (**5.712.4.3.1)**
    A. Controllers shall be weather- or soil moisture based controllers that automatically adjust irrigation in response to changes in plants' needs as weather condition change.
    B. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controllers(s). Soil moisture-based controllers are not required to have rain sensor input.

MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

13. **Moisture control.** Employ moisture control measures by the following methods. (**5.713.7.2)**
    A. **Sprinklers.** Design and maintain landscape irrigation systems to prevent spray on structures. (**5.713.7.2.1)**
    B. **Entries and openings.** Design exterior and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings. (**5.713.7.2.2)**

CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

14. **Construction waste management.** Recycle and/or salvage for reuse a minimum of 50% of the nonhazardous construction waste in accordance with City of Newport Beach recycle ordinance. (**5.713.8.1)**
15. **Excavated soil and land clearing debris.** 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed. (**5.713.8.1.3)**

    Exception: *Reuse, either on- or off-site, of vegetation or soils contaminated by disease or pest infestation.*

BUILDING MAINTENANCE AND OPERATION

16. **Testing and adjusting.** Testing and adjusting of new systems installed to serve an addition or alteration subject to Section 710.1 shall be required. (**5.713.10.4)**
17. **Systems.** Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include, as applicable to the project, the system listed in Section 5.713.10.4.2. (**5.713.10.4.2)**
18. **Procedures.** Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system. (**5.713.10.4.3.)**
19. **HVAC balancing.** In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, balance the system in accordance with the procedures defined by national standards listed in Section 5.713.10.4.3.1 or as approved by the enforcing agency. (**5.713.10.4.3.1)**
20. **Reporting.** After completion of testing, adjusting, and balancing, provide a final report of testing signed by the individual responsible for performing these services**. (5.713.10.4.4)**
21. **Operation and maintenance manual.** Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection. (**5.713.10.4.5)**

ENVIRONMENTAL QUALITY

5.714.4. Pollutant control

22. **Temporary ventilation.** If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.5-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. (**5.714.4.1)**
23. **Covering of duct openings of mechanical equipment during construction.** At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system. (**5.714.4.3)**
24. **Finish material pollutant control.** Finish materials shall comply with Sections 5.714.4.4.1 through 5.714.4.4.4. (**5.714.4.4)**
25. **Adhesives, sealants, and caulks.** Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards (**5.714.4.4.1)**
26. **Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3 in Division 5.5. (**5.714.4.4.3)**
    A. **Aerosol paints and coatings.** Aerosol paints and coatings shall meet the Produce-Weighted MIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances (CCR, title 17, Section 94520 et seq), (**5.714.4.4.3.1)**
27. **Carpet systems.** All carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in Section 5.714.4.4.4. (**5.714.4.4.4)**
    A. **Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. (**5.714.4.4.4.1)**
    B. **Carpet adhesive.** All carpet adhesive shall meet the requirements of Table 5.504.4.1 in Division 5.5. (**5.714.4.4.4.2)**
28. **Composite wood products.** Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall mee the requirements for formaldehyde as specified in Table 5.504.4.5 in Division 5.5. (**5.714.4.4.4.5)**

29. **Resilient flooring system.** For 50% of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 CHPS criteria and listed on its High Performance Database; products compliant with CHPS criteria certified under the Greenguard Children & Schools program; certified under the Resilient Floor Covering Institute (RFCI)FloorScore program; meet California Department Public Health 2010 Specification 01350. (**5.714.4.4.6)**
    A. **Filters.** In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provide at least a MERV of 8. MERV 8 filters shall be installed after any flush-out or testing and prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. (**5.714.4.5.3)**
    B. **Exception:** A MERV-1 filter shall be allowed for return air only or return with pre-filtered outside air, if the filter is of a re-usable, non-disposable type, and the fan energy use of that air delivery system is 0.4 W/cfm or less at design airflow.
30. **Environmental tobacco smoke (ETS) control.** Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations, or policies of any city, county, or California. Post signage to inform building occupants of the prohibition**. (5.714.4.4.7)**
31. **Indoor moisture control.** Building shall meet CBC Section 1203 and Chapter 14. (**5.714.5.1)**
32. **Carbon dioxide (CO2) monitoring.** For additional equipped with demand control ventilation, CO2 sensors and ventilation see 2010 California Energy Code. (**5.714.6.2)**

5.714.8. Outdoor air quality

33. **Chlorofluorocarbons (CFCs).** Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs. (**5.714.8.1.1)**
34. **Halons.** Install HVAC, refrigeration and fire suppression equipment that do not contain Halons. (**5.714.8.1.2)**

DOCUMENTATIONS

35. Verifications of compliance with aerosol paints and coatings shall be provided at the request of the building official. (**5.714.4.4.3.2)**
36. Verification of compliance with composite wood products shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following. (**5.714.4.4.4.5.2)**
    A. Product certifications and specifications.
    B. Chain of custody certifications.
    C. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.)
    D. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
    E. Other methods acceptable to the enforcing agency.
37. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. (**5.714.4.4.6.1)**
38. An acoustical analysis documenting noise compliance of prescriptive method 5.714.7.1.2 shall be prepared by the architect or engineer of record. (**5.714.7.1.2.1)**

VOC & FORMALDEHYDE LIMITS

TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS [2,3] (Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds)	
COATING CATEGORY	**VOC LIMIT**
Flat coatings	50
Nonflat coatings	100
Nonflat-high gloss coatings	150
Specialty Coatings	
Aluminum roof coatings	400
Basement specialty coatings	400
Bituminous roof coatings	50
Bituminous roof primers	350
Bond breakers	350
Concrete curing compounds	350
Concrete/masonry sealers	100
Driveway sealers	50
Dry fog coatings	150
Faux finishing coatings	350
Fire resistive coatings	350
Floor coatings	100
Form-release compounds	250
Graphic arts coatings (sign paints)	500
High temperature coatings	420
Industrial maintenance coatings	250
Low solids coatings[1]	120
Magnesite cement coatings	450
Mastic texture coatings	100
Metallic pigmented coatings	500
Multicolor coatings	250
Pretreatment wash primers	420
Primers, sealers, and undercoaters	100
Reactive penetrating sealers	350
Recycled coatings	250
Roof coatings	50
Rust preventative coatings	250
Shellacs Clear Opaque	 730 550
Specialty primers, sealers and undercoaters	100
Stains	250
Stone consolidants	450
Swimming pool coatings	340
Traffic marking coatings	100
Tub and tile refinish coatings	420
Waterproofing membranes	250
Wood coatings	275
Wood preservatives	350
Zinc-rich primers	340

1. Grams of VOC per liter of coating, including water and including exempt compounds.
2. The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.
3. Values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure, February 1, 2008. More information is available from the Air Resources Board.

TABLE 5.504.4.1 ADHESIVE VOC LIMIT [1,2] (Less Water and Less Exempt Compounds in Grams per Liter)	
ARCHITECTURAL APPLICATIONS	**VOC LIMIT**
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet adhesives	150
Wood flooring adhesive	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250
Other adhesives not specifically listed	50
SPECIALTY APPLICATIONS	
PVC welding	510
CPVC welding	490
ABS welding	325
Plastic cement welding	250
Adhesive primer for plastic	550
Contact adhesive	80
Special purpose contact adhesive	250
Structural wood member adhesive	140
Top and trim adhesive	250
SUBSTRATE SPECIFIC APPLICATIONS	
Metal to metal	30
Plastic foams	50
Porous material (except wood)	50
Wood	30
Fiberglass	80

1. If an adhesive is used to bond dissimilar substrates together, the adhesive with highest VOC content shall be allowed.
2. For additional information regarding methods to measure the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168

TABLE 5.504.4.2 SEALANT VOC LIMIT (Less Water and Less Exempt Compounds in Grams per Liter)	
SEALANTS	**VOC LIMIT**
Architectural	250
Marine deck	760
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
SEALANT PRIMERS	
Architectural Nonporous Porous	 250 775
Modified bituminous	500
Marine deck	760
Other	750

TABLE 5.504.4.5 FORMALDEHYDE LIMITS[1] (Maximum formaldehyde Emissions in Parts per Million)	
PRODUCT	**LIMIT**
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	0.09
Medium density fiberboard	0.11
Thin medium density fiberboard[2]	0.13

1. Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E 1333-96(2002). For additional information, see *California Code of Regulations*, Title 17, Sections 93120 through 93120.12
2. Thin medium density fiberboard has a maximum thickness of 8 millimeters